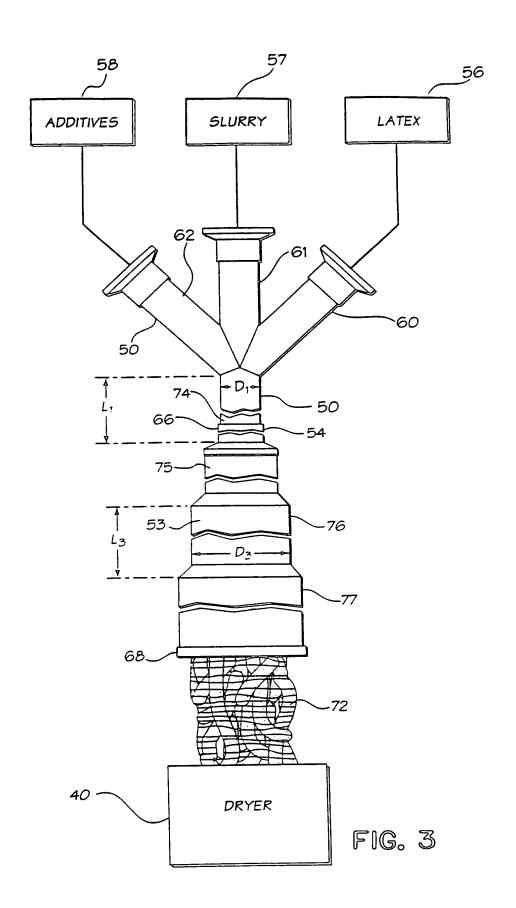
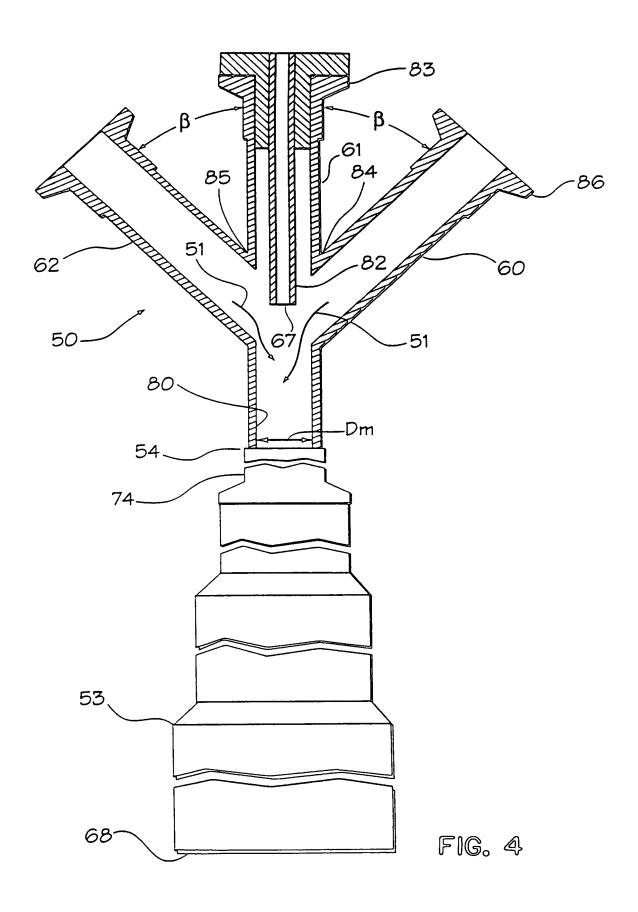
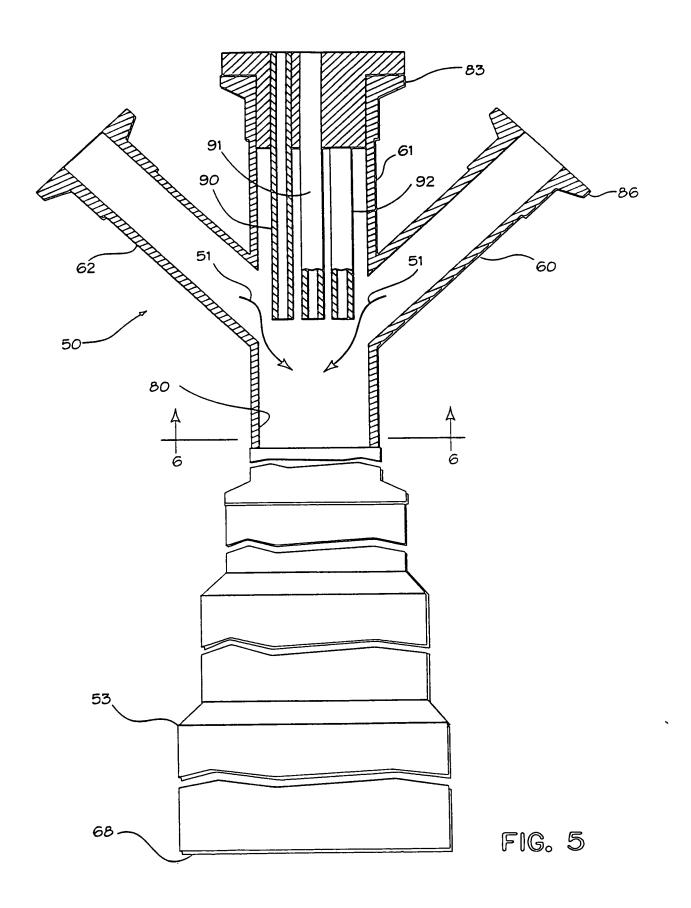
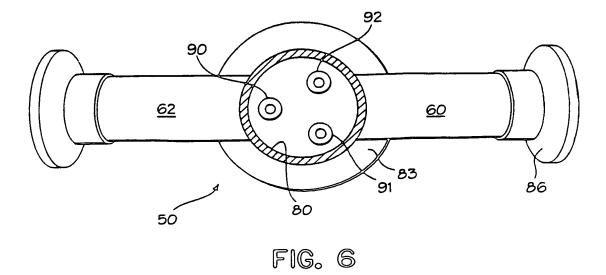


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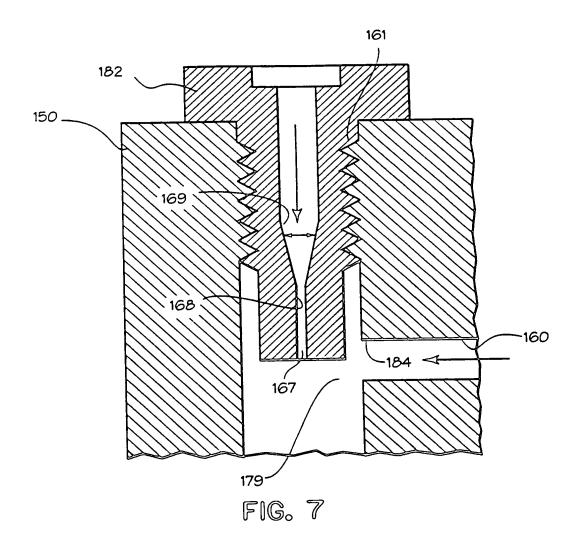


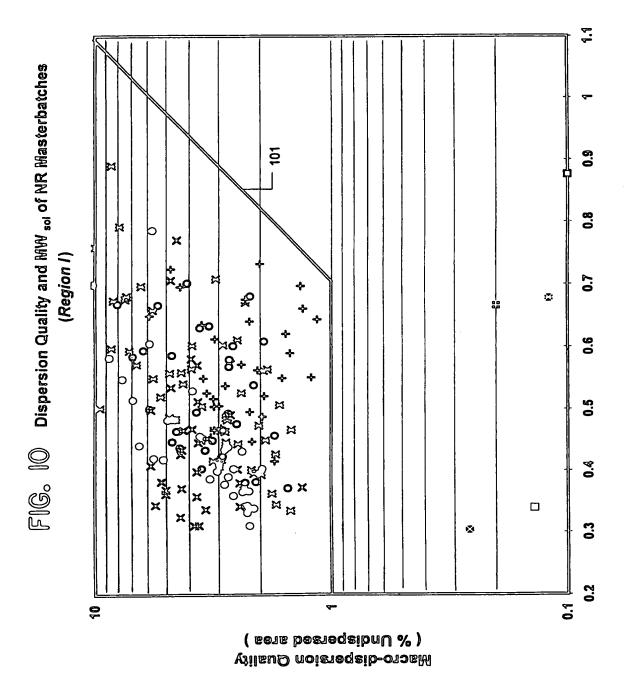
FIG. 8

165 O VULCAN 10H 155 Region III 145 Region N110 135 125 Carbon Black Morphology Map N234 N231 N220 REGAL 660 115 105 O VULCAN 2H **8** N339 **69** (%) N326 N330 140 STERMING 6740 75 N351 **6**9 REGAL 250 85 85 \$ 2 (2001/100) A980 3 8 . 83 188 120 Ş

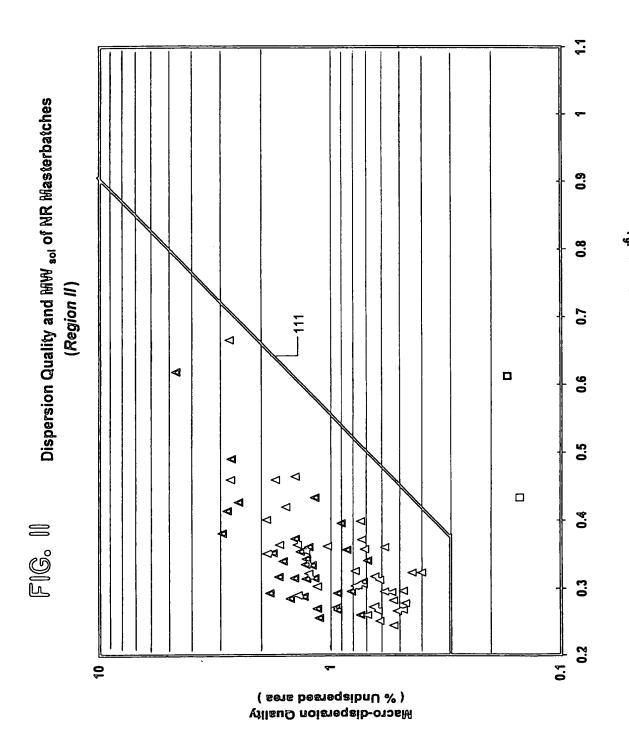
CTAB (m^2/g)

Dispersion Quality and MW sol of NR Masterbatches \Diamond 9.0 **0**.8 **\$** F16, 9 **0**.8 **6**.3 0.7 (sens bestedsibnU %) Wacro-dispersion Quality

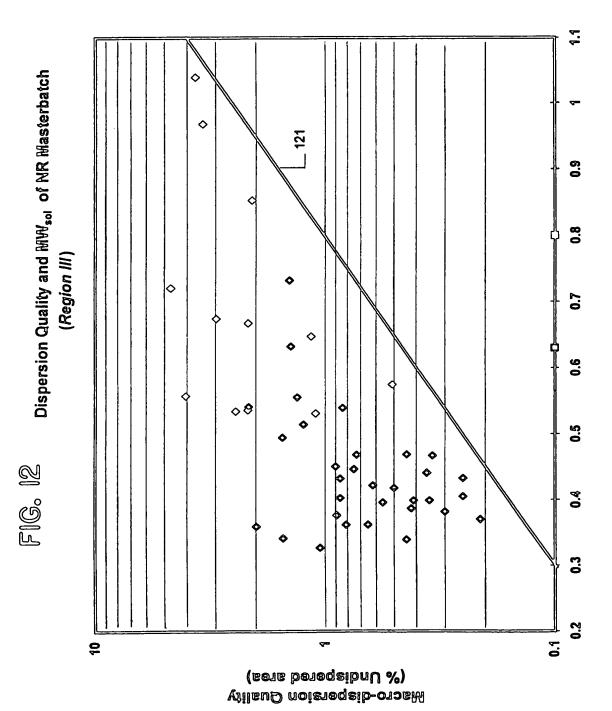
HWV of Sol Portion of NR Hasterbatch (\times 10 $^{-6}$)



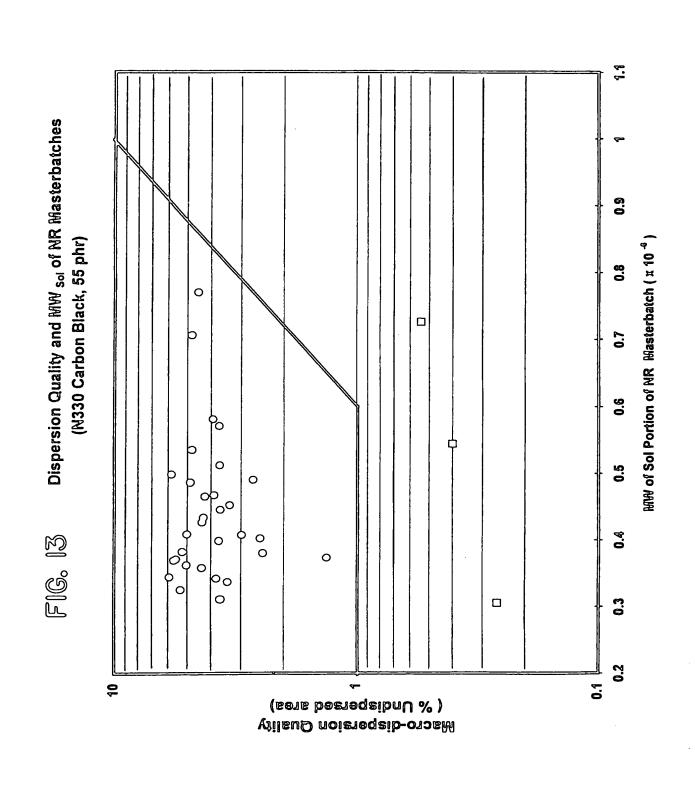
MW of Sol Portion of NR Masterbatch (imes 10 $^{ extsf{-6}}$)

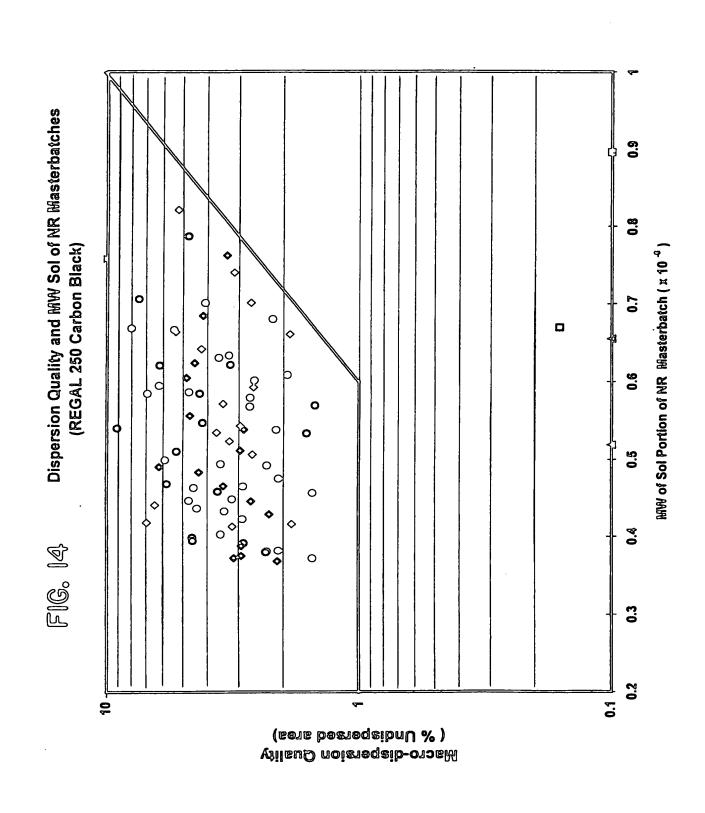


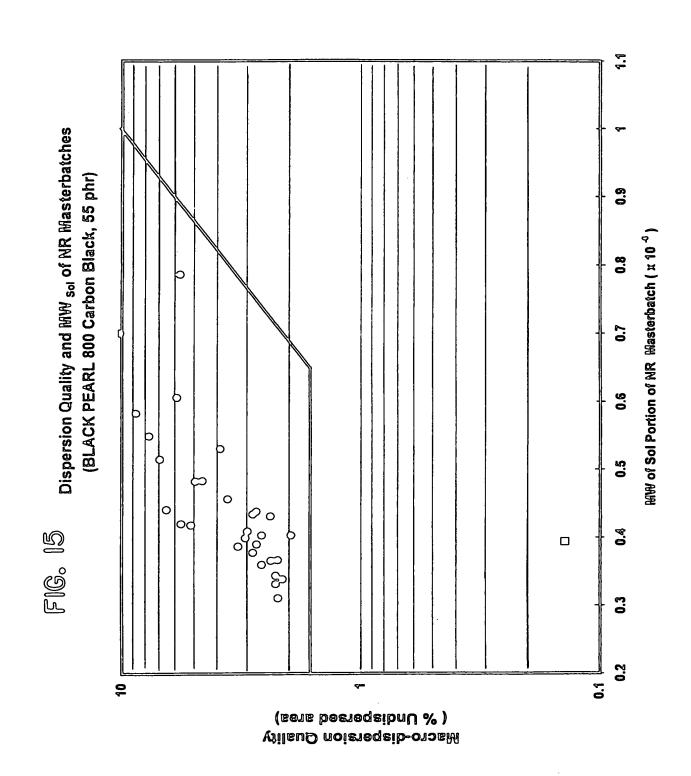
MHV of Sol Portion of NR Masterbatch (κ 10 $^{-6}$)

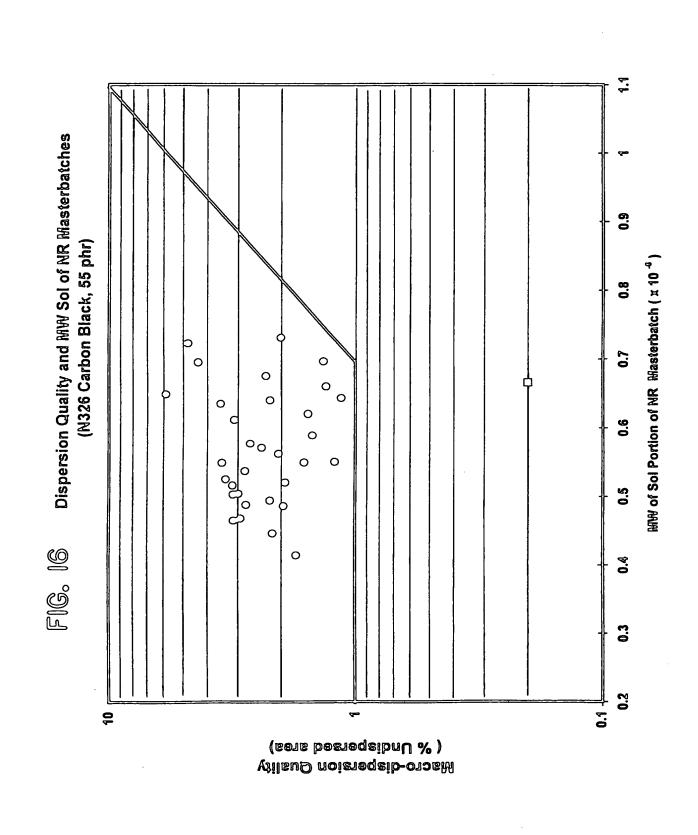


MW of Sol portion of NR Masterbatch (x10 4)

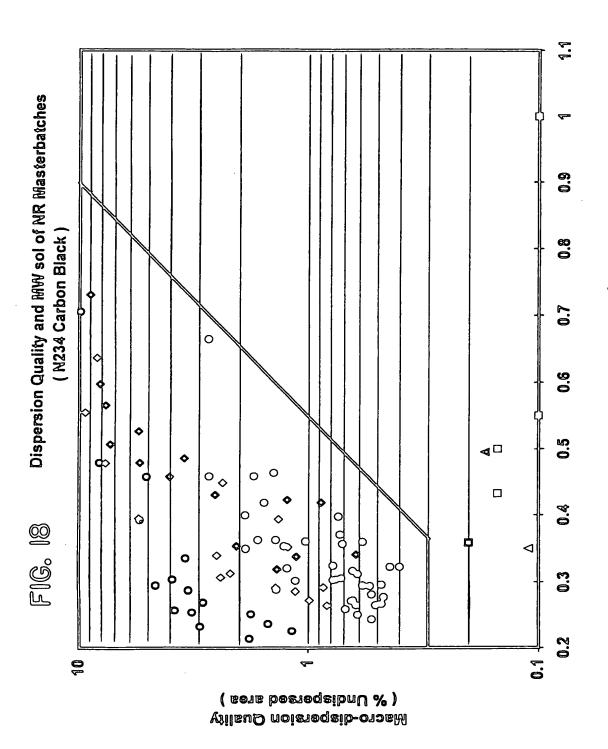




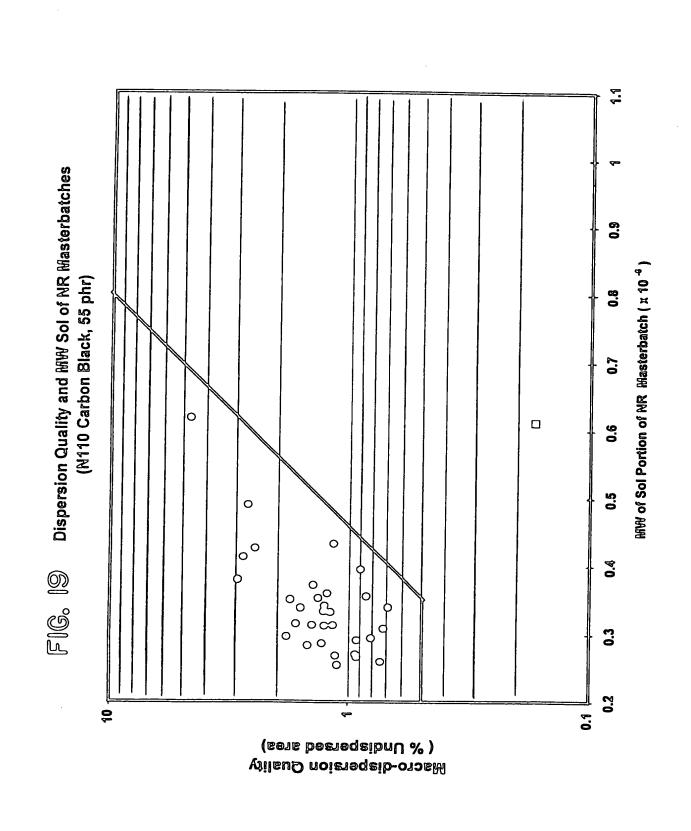




<u>7</u>. Dispersion Quality and MWSol of NR Masterbatches හ. ර WIVE of Sol Portion of NR Masterbatch ($^{\mathrm{H}}$ 10 $^{\mathrm{G}}$) (REGAL 660 Carbon Black) 0.7 0 0 \Diamond 이 0 **\rightarrow** 0 0 9.0 þ • 0 0 0.5 0 0 3 **0**.4 0 000 0.3 0.3 **..** (sers beareqsibnU %) Macro-dispersion Quality



MPV of Sol Portion of NR Masterbatch (\times 10 $^{-6}$)



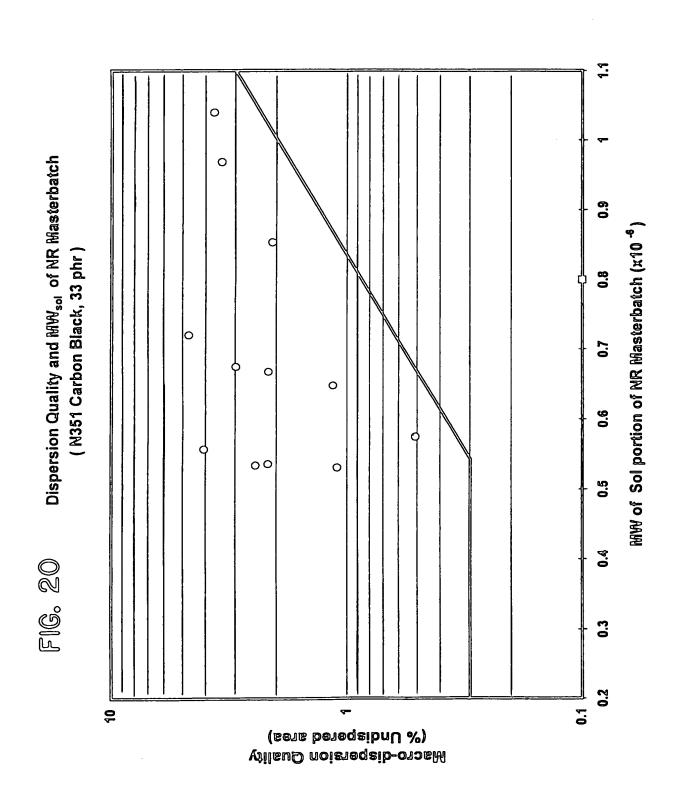
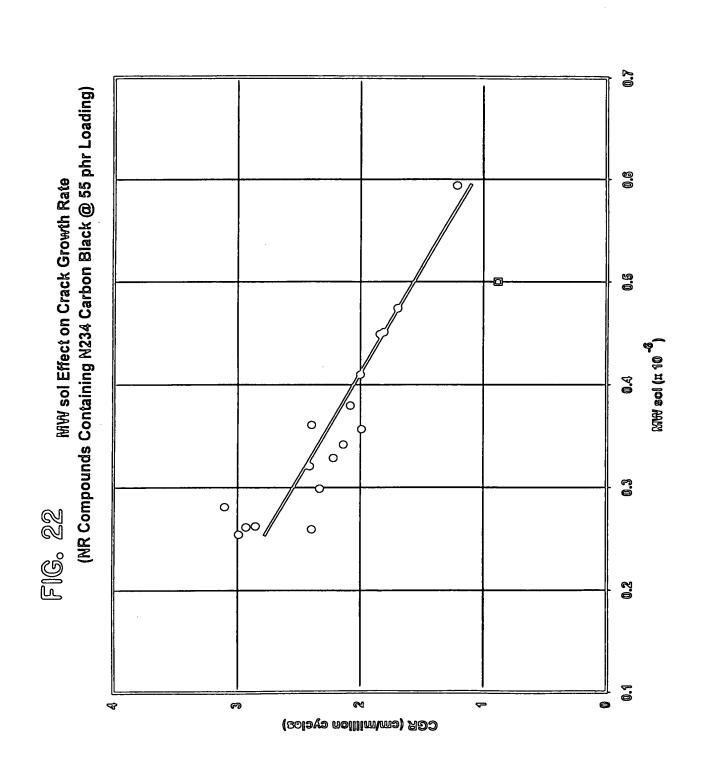
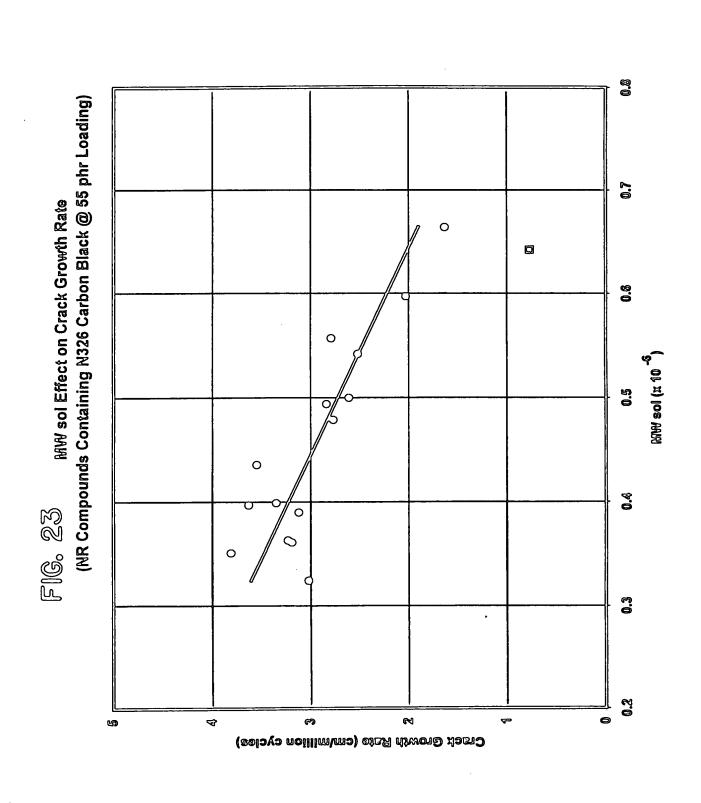
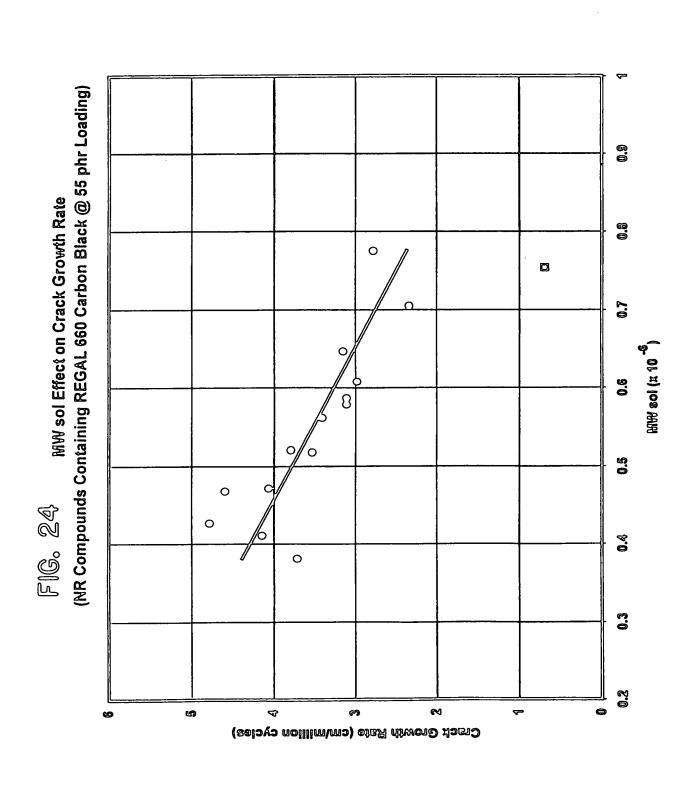
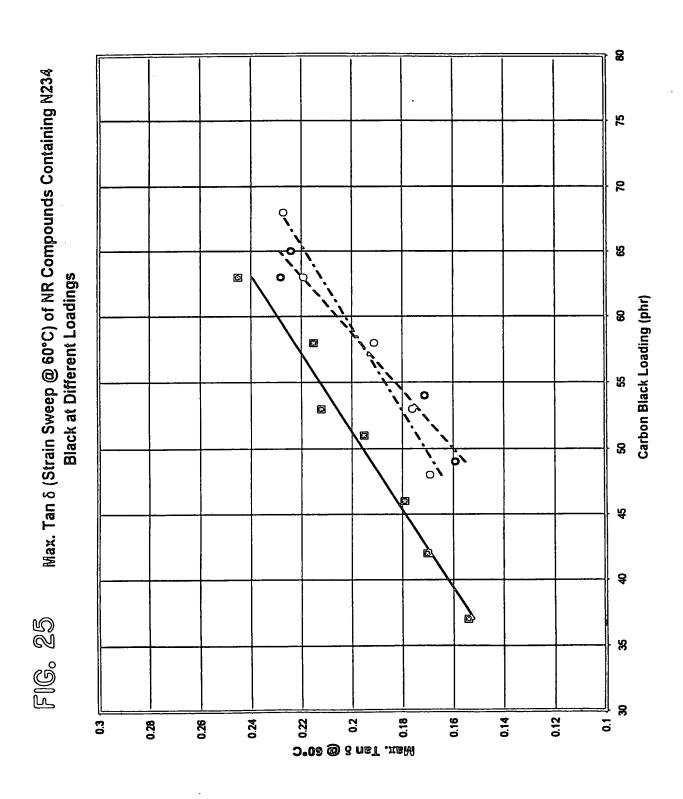


FIG. 21 Dispersion Quality and MW Sol of NR Masterbatches (STERLING 6740 Carbon Black, 55 phr) 0.9 MW of Sol Portion of NR Masterbatch (st 10 4) 0 0.7 0 0.8 0 0 0 о О 0 0 0 0 **0**. 0 0 0 0 0 0 0.7 . (sens beerequibnU %) Macro-dispersion Quality









Tear Resistance Crack Growth Cut-and-Chip 13 160 OTR Tread 2 Carbon Blacks in NR Compounds for OTR Tread N134 - N 5 <u>262</u> 130 N220 N234 REGAL 660 100 110 120 N299 <u>261</u> N347 N343 N339 8 N330 N326 VULCAN 2H 8 2 STERLING 6740 N351 8 REGAL 250 FIG. 26 ß N550 \$ റ്റ 2 8 \$ **4** 8 120 **8** 6 (e001\00) A980

CTAB (m^2/g)

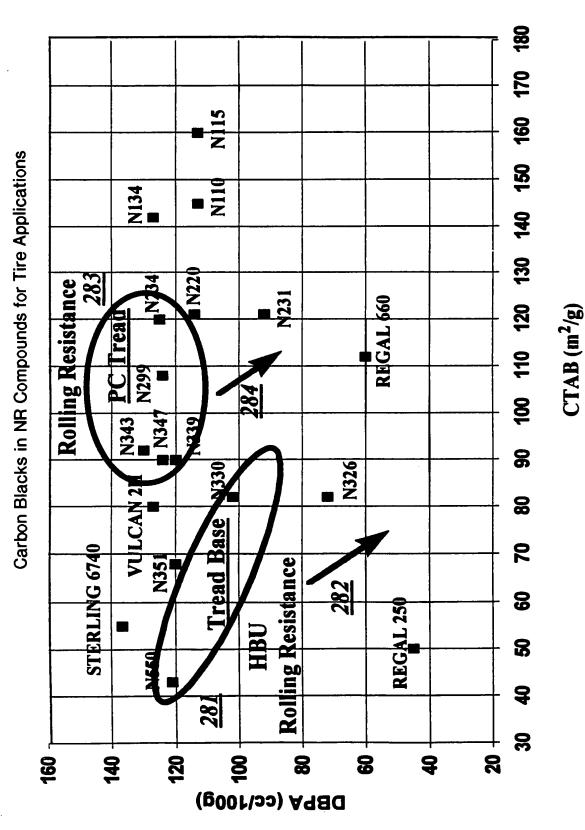
180

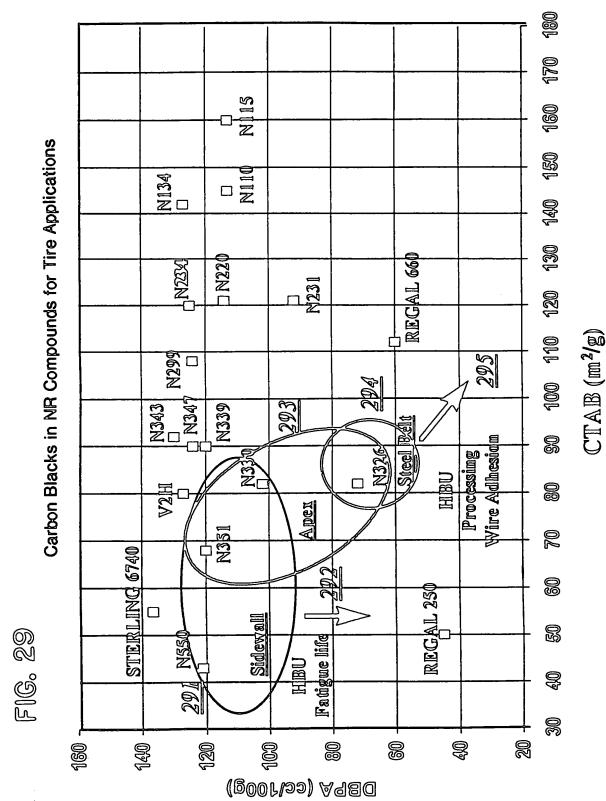
F16, 27

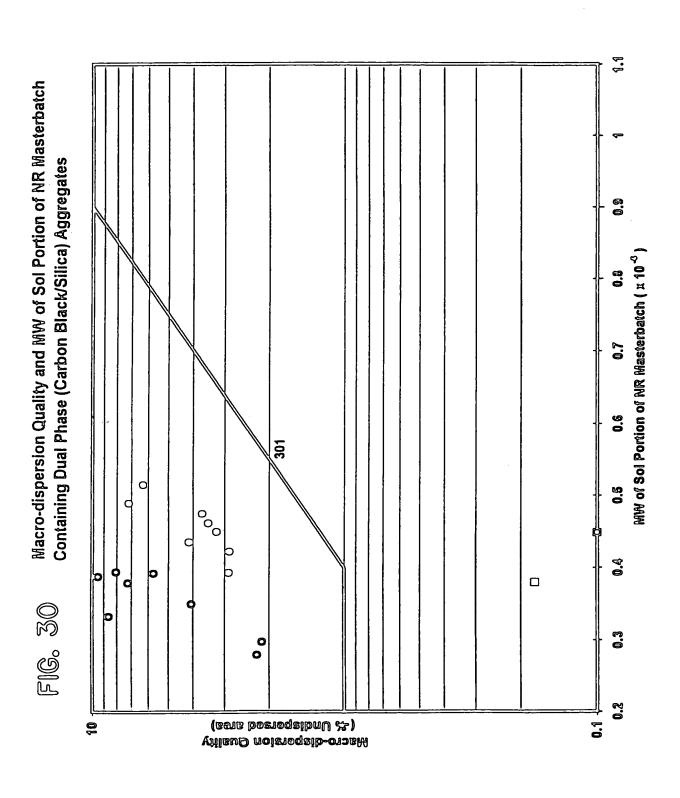
2 170 272 IMB Tread NIIS 160 Wear Resistance 188 189 Carbon Blacks in NR Compounds for T/B Tread 271 140 130 □ N220 AN234 N231 REGAL 660 120 110 100 1 N347 N343 N339 8 N326 N330 VULCAN 2H 8 20 STERLING 6740 N3S 8 REGAL 250 r R N\$\$0 \$ 8 8 8 8 140 120 100 8 160 (600 r/22) A980

CTAB (m/g)

FIG. 28







2. Macro-dispersion Quality and MW of Sol Portion of NR Masterbatch ම ම Containing Blend of Carbon Black and Silica MW of Sol Portion of NR Hasterbatch (lpha 10 $^{\circ}$) 31 d O (e) 0 0 • О 0 **®** 0 q 0 @ 0 Ю 0 **6**.0 0 0 0 0 0 6.3 F16, 31 0.0 (sens bezneqsibnU %)

Macro-dispersion Quality